Further, in response to the Office Communication dated September 25, 2002, Applicants submit herewith six (6) sheets of formal drawings referenced by a SEQ ID NO:.

In view of the foregoing, applicant respectfully requests the application proceed to examination. A copy of the Office Communication is attached hereto.

Respectfully submitted,

James V. Costigan
Registration No. 25,669

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MARKED UP COPY OF THE SPECIFICATION:

On page 6, following the heading BRIEF DESCRIPTION OF THE DRAWINGS, please delete lines 2 through 12 and replace them with the following:

--Figures 1 A-B. Nucleotide sequence of the murine *TRP8* cDNA encoding murine TRP8, SEQ ID NO: 1.

--Figure 2. Deduced amino acid sequence of the murine TRP8 transient receptor potential channel, SEQ ID NO: 2.--

--Figures 3A-B. Nucleotide sequence of the human *TRP8* cDNA encoding human TRP8, SEQ ID NO: 3.--

--Figure 4. Deduced amino acid sequence of the human TRP8 protein transient receptor potential channel, SEQ ID NO: 4.--

--Figure 5. Amino acid sequence of the murine TRP8 (upper lines); versus human TRP8 (lower lines), as represented in part by SEQ ID NO: 2 and SEQ ID NO: 4, respectively, and displayed in SEQ ID NO: 6. Each pair of lines corresponds to a predicted mouse/human exon.--

Please delete the paragraph on page 8, starting on line 3, through line 6, and replace it with the following paragraph:

-- The cDNA sequence and deduced amino acid sequence of murine TRP8 are shown in Figures 1 (SEQ ID NO: 1) and 2 (SEQ ID NO: 2), respectively. The cDNA and deduced amino acid sequence of human TRP8 are shown in Figures 3 (SEQ ID NO: 3) and 4 (SEQ ID NO: 4), respectively.--

Please delete the paragraph on page 8, starting on line 7, through line 30, and replace it with the following paragraph:

--The *TRP8* nucleotide sequences of the invention include: (a) the DNA sequences shown in FIG. 1 (SEQ ID NO: 1) or 3 (SEQ ID NO: 3) or contained in the cDNA clone pMR24 within E. coli strain XL10 Gold as deposited with the American Type Culture Collection (ATCC Accession No.); (b) nucleotide sequences that encode the amino acid sequence shown in Figure 2 (SEQ ID NO: 2)or 4 (SEQ ID NO: 4) or the TRP8 amino acid sequence encoded by the cDNA clone pMR24 as deposited with the ATCC; (c) any nucleotide sequence that (i) hybridizes

to the nucleotide sequence set forth in (a) or (b) under stringent conditions, e.g., hybridization to filter-bound DNA in 0.5 M $NaHPO_4$, 7% sodium dodecyl sulfate (SDS), 1 mM EDTA at 65EC, and washing in 0.1xSSC/0.1% SDS at 68EC (Ausubel F.M. et al., eds., 1989, Current Protocols in Molecular Biology, Vol. I, Green Publishing Associates, Inc., and John Wiley & sons, Inc., New York, at p. 2.10.3) and (ii) encodes a functionally equivalent gene product; and (d) any nucleotide sequence that hybridizes to a DNA sequence that encodes the amino acid sequence shown in Figure 1 (SEQ ID NO: 1) or 3 (SEQ ID NO: 3), or that is contained in cDNA clone pMR24 as deposited with the ATCC, under less stringent conditions, such as moderately stringent conditions, e.g., washing in 0.2xSSC/0.1% SDS at 42EC (Ausubel et al., 1989 supra), yet which still encodes a functionally equivalent TRP8 gene product. Functional equivalents of the TRP8 protein include naturally occurring TRP8 present in species other than mice and humans. The invention also includes degenerate variants of sequences (a) through (d). The invention also includes nucleic acid molecules, that may encode or act as *TRP8* antisense molecules, useful, for example, in *TRP8* gene regulation (for and/or as antisense primers in amplification reactions of *TRP8* gene nucleic acid sequences).

Please delete the paragraph on page 10, starting on line 16, through line 22, and replace it with the following paragraph:

--Figures 2 (SEQ ID NO: 2) and 4 (SEQ ID NO: 4) show the deduced amino acid sequence of the murine and human TRP8 protein, respectively. The TRP8 amino acid sequences of the invention include the amino acid sequence shown in Figure 2 (SEQ ID NO: 2) or Figure 4 (SEQ ID NO: 4), or the amino acid sequence encoded by cDNA clone pMR24 as deposited with the ATCC. Further, TRP8s of other species are encompassed by the invention. In fact, any TRP8 protein encoded by the *TRP8* nucleotide sequences described in Section 5.1, above, is within the scope of the invention.--

Please delete the paragraph on page 29, starting on line 9, through line 16, and replace it with the following paragraph:

--Based upon homology of the mouse clone with a region of human chromosome 11p15.5 contained in a BAC clone (genebank #AC003693) a human

TRP8 orthqlog was identified. The nucleotide sequence of the human TRP8 gene, as well as the deduced amino acid sequence, are depicted in Figures 3A-B (SEQ ID NO: 3) and 4 (SEQ ID NO: 4), respectively. A comparison of the murine and human TRP 8 proteins is shown in Figure 5 (SEQ ID NO: 2 and SEQ ID NO: 4, respectively). This region of human chromosome 11p15.5 is syntenic with the distal region of mouse chromosome 7. In both cases, TRP8 and h*TRP8* map between genes for Kvlqt1 and TSSC4.--

MARKED UP COPY OF THE CLAIMS:

1. An isolated nucleic acid molecule comprising a nucleotide sequence that encodes the amino acid sequence shown in [Figure 2] (SEQ ID NO: 2).

2. The isolated nucleic acid molecule of claim 1 comprising the DNA sequence of [FIG. 1] (SEQ ID NO: 1).

3. An isolated nucleic acid molecule comprising the DNA sequence of [Fig. 3] (SEQ ID NO: 3).

4. The isolated nucleic acid molecule of claim 3 comprising a nucleotide sequence that encodes the amino acid sequence shown in [Figure 4] (SEQ ID NO: 4).

8. An isolated polypeptide comprising the amino acid sequence of [Figure 2] (SEQ ID NO: 2).

9. An isolated polypeptide comprising the amino acid sequence of [Figure 4] (SEQ ID NO: 4).

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/834,792	04/13/2001	Robert F. Margolskee	AP32911 070165.0589	8395

7590 09/25/2002

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NEW YORK, NY 10112

EXAMINER
TURNER, SHARON L

ART UNIT	PAPER NUMBER
1647	

DATE MAILED: 09/25/2002

9

Please find below and/or attached an Office communication concerning this application or proceeding.

CASE 1270-007 ATTY JVC
DUE DATE October 25, 2002
STATUTORY DATE February 25, 2002
BY JBR

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.

EXAMINER	
ART UNIT	PAPER NUMBER

Please find below a communication from the EXAMINER in charge of this application

This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825 for the reason(s) set forth on the attached Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures. Applicant must comply with the requirements of the sequence rules (37 CFR 1.821 - 1.825) before the application can be examined under 35 U.S.C. §§ 131 and 132.

Applicant is given ONE MONTH from the mailing date of this communication within which to comply with the sequence rules, 37 CFR 1.821 - 1.825. Failure to comply with these requirements will result in ABANDONMENT of the application under 37 CFR 1.821(g). Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a). Direct the reply to the undersigned. Applicant is requested to return a copy of the attached Notice to Comply with the reply.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Turner whose telephone number is (703) 308-0056. If the examiner cannot be reached, inquiries can be directed to Supervisory Patent Examiner Gary Kunz whose telephone number is (703) 308-4623. The fax number for the organization where this application or proceeding is assigned is (703) 308-4242. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Sharon Turner
9-23-02

CASE 270-007 ATTY JVC
DUE DATE October 25, 2002
STATUTORY DATE February 25, 2003
BY BC

NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

Applicant must file the items indicated below within the time period set the Office action to which the Notice is attached to avoid abandonment under 35 U.S.C. § 133 (extensions of time may be obtained under the provisions of 37 CFR 1.136(a)).

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

- [X] 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to the final rulemaking notice published at 55 FR 18230 (May 1, 1990), and 1114 OG 29 (May 15, 1990). If the effective filing date is on or after July 1, 1998, see the final rulemaking notice published at 63 FR 29620 (June 1, 1998) and 1211 OG 82 (June 23, 1998).
- [ ] 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
- [ ] 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
- [ ] 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."
- [ ] 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
- [ ] 6. The paper copy of the "Sequence Listing" is not the same as the computer readable from of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
- [X] 7. Other: The figures do not comply as they are not referenced by a SEQ ID NO.

Applicant Must Provide:

- [X] An initial or substitute computer readable form (CRF) copy of the "Sequence Listing" if required
- [X] An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification if required
- [X] A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d) if required

For questions regarding compliance to these requirements, please contact:

For Rules Interpretation, call (703) 308-4216
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